# FEORP

Federal Equal Opportunity Recruitment Program



ACCOMPLISHMENT REPORT

FISCAL 20 I I

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# **Overview**

## **FEORP Requirement**

The FY2011 Federal Equal Opportunity Recruitment Program (FEORP) Accomplishment Report responds to the Office of Personnel Management's (OPM's) requirement that Federal agencies report annually on their efforts to recruit, develop, and retain a diverse workforce. It also supports OPM's report to Congress in compliance with Federal statute 5 U.S.C.7201. The National Science Foundation (NSF) has a history of commitment to promoting diversity among all groups and this report describes NSF's accomplishments during FY2011.

#### Introduction

NSF is committed to promoting diversity among all groups, including underrepresented groups. NSF's Strategic Plan for FY2011-2016, "Empowering the Nation through Discovery and Innovation," strives toward this goal and emphasizes the need to increase representation among the ranks of the workforce both in the science, technology, engineering and mathematics (STEM) areas, as well as business and operations. It specifically states the desire

for alternative and diverse approaches to excellence in education and mentoring to create opportunities to tap into America's potential.

The NSF Strategic Plan also identifies NSF core values, which are essential and enduring tenets that influence the workforce and support the NSF mission. One of the core values identified describes an organization that is *Broadly Inclusive* in seeking and including contributions from all sources, while reaching out with a particular emphasis on underrepresented groups.

"The NSF core values are essential and enduring tenets that influence everyone in the organization and support our mission. NSF is:

Broadly Inclusive—seeking and including contributions from all sources while reaching out, especially to groups that are underrepresented, serving scientists, engineers, educators, students, and the public across the nation, and exploring opportunities for partnerships, both nationally and internationally..."

Empowering the Nation through Discovery and Innovation: NSF Strategic Plan for Fiscal Years (FY) 2011 2016

Additionally, the core values of *Dedication to Excellence* and *Learning and Growing* apply across NSF. These values promote recruiting and training a workforce that is versatile, motivated, inclusive, and constantly open to new learning opportunities. NSF is committed to developing a world-class scientific and engineering workforce that reflects the diversity of the nation.

Beyond hiring and developing a diverse team, NSF also aims to award grants to similarly broad groups. A key component of NSF's grant-giving merit review process is broadening participation and intellectual merit. As part of this goal, the agency strives to build the pipeline of future



scientists and provides research grants in order to promote discovery. While grant recipients do not work at the agency, there exists a potential pipeline for future employment. Senior scientists who serve as principal investigators, reviewers, or panelists often become NSF employees.

Over the past fiscal year, NSF has made progress in diversifying and broadening participation in its workforce through recruitment and training activities. NSF's workforce strategy seeks to serve not only the Federal workforce but the wider academic and research communities. Through leading by example, NSF encourages broader participation in the wider research community, thereby creating a pipeline for the current and future scientific and NSF workforces.

The following sections of this report describe NSF's efforts and accomplishments in recruiting, developing, and retaining a diverse workforce.



# Section I - Workforce Planning

NSF's workforce consists of permanent or temporary intermittent, part-time and full-time employees. Additionally, the Foundation supplements its workforce with scientists, engineers, and educators on rotational assignment from academia, industry, or other eligible organizations to further the agency's mission of supporting the entire spectrum of science and engineering research and education. The most frequently used programs are the Visiting Scientist, Engineer and Educator (VSEE) Program and the Intergovernmental Personnel Act (IPA) Program.

At NSF, staffing decisions are made primarily through the hiring directorates, divisions, and offices. Therefore, directorate, division, and office leadership is held accountable for developing and implementing plans to assure that the workforce is ethnically and racially diverse, to include individuals with disabilities and veterans. These organization-level plans ultimately feed into a Foundation-wide workforce plan and directly support NSF's strategic goals.

The NSF Human Capital Strategic Plan provides an integrated framework of policies and practices to guide NSF in meeting its workforce needs and enable NSF to excel as an organization. The plan incorporates the Foundation-level workforce and succession plans, and outlines recruitment, professional development, retention, and human capital strategies necessary to foster a diverse, skilled workforce at NSF. The plan further articulates an agency-wide human capital vision and describes NSF's workforce composition and human capital challenges within the 21<sup>st</sup> century context.

"[NSF will] attract, develop and retain a diverse, world-class workforce that is continually learning and expanding its capacity to shape the agency's future; and nurture a culture of integrity and excellence that encourages creativity and initiative and that promotes a healthy work-life environment."

Vision Statement, NSF Human Capital Strategic Plan

Integrated workforce planning is essential to the effective development and implementation of strategic goals. Foundation leadership places a strong value on sound workforce planning. As such, NSF carries out several workforce planning programs and supporting initiatives in line with the *NSF Human Capital Strategic Plan*. The below section describes these programs and initiatives in detail.

# **HRM and Program Office Workforce Planning Efforts**

Workforce planning efforts are primarily facilitated by Service Teams in the Division of Human Resources Management (HRM). Each Directorate at the NSF is assigned a Service Team that is responsible for ensuring the timeliness and quality of human capital transactions and for

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facilitating workforce planning activities within the Directorate. One component of the Service Team's workforce planning activities is the agency's annual staffing planning process. The purpose of the NSF staffing planning initiative is to develop a Foundation-wide workforce plan and recruitment strategy. Specifically, staffing planning utilizes current workforce planning tools, techniques, and training to assist NSF supervisors and managers in determining future hiring and staffing requirements for their organizations.

The Foundation's current staffing planning process involves data collection and analysis, followed by extensive dialogue among division and directorate managers and Service Teams members from HRM on workforce trends and projected hiring needs. The Service Teams work with designated directorates and offices to identify organizational needs for future positions, plan for imminent vacancies, avoid delays in filling jobs, identify position management and organizational structure issues that require advance planning, and develop recruitment strategies for hard-to-fill positions. Ultimately, this process assists NSF in identifying and targeting underrepresented groups, veterans, and persons with disabilities through tailored outreach and recruitment activities.

In May 2010, NSF established a staffing planning working group to conduct a consolidated, cross-functional effort to facilitate the determination of workforce needs across the agency. The working group was charged with reviewing current workforce and staffing planning processes to identify best practices and gap areas, and then with planning and executing the coordinated effort to develop staffing plans in each of the agency's science, engineering, and education directorates. The working group was comprised of representatives from various HR functional areas including workforce planning, staffing, recruiting, classification, learning and development, and veterans employment. This group continued its work into FY2011 in order to incorporate lessons learned and best practices from the prior year.

Ultimately, staffing planning helps to consolidate individual directorate and office recruitment needs and provide a bigger-picture perspective of staffing needs and gaps across NSF. This enables NSF to better target hires by employing appropriate outreach and recruitment strategies to include a focus on recruiting a broadly diverse workforce. In addition, the iterative planning process promotes buy-in from NSF stakeholders for workforce and staffing planning as an agency priority for strategic recruitment efforts, and helps to elicit participation in recruitment activities.



## **Directorate-Level Workforce Planning Efforts**

Beyond the agency-wide staffing planning efforts described above, various directorates conduct additional workforce planning activities. Two examples are provided below.

- The Directorate of Biological Sciences (BIO): BIO identifies promising future program and division directors, especially from underrepresented groups, at meetings, conferences, and workshops. From there, they invite these individuals to participate in the peer review process, either as ad hoc reviewers or panelists. After identifying potential candidates, the Directorate initiates an active dialog to enhance the likelihood of hiring well-qualified scientists in a timely manner for anticipated openings.
- The Directorate for Mathematical and Physical Sciences (MPS): MPS recognizes the need for and value of a diverse staff. MPS demonstrates a concerted effort in broadening participation through the following activities: Program Officer outreach, visits to Minority-Serving Institutions, personal contacts with minority and women scientists, summer courses and workshops for minority students, and targeted advertising.

## **Training for Managers**

The NSF Academy provides training and learning resources to managers to help them effectively manage diversity and promote inclusion among their staff. For example, two newly designed programs – the Executive Leadership Retreat (ExLR) and Transition to Management workshops – provide managers with essential skills for working across boundaries and collaborative communication, emphasizing the importance of workforce planning efforts.

## Accountability

NSF has a history of holding executives accountable for developing and maintaining a high quality, diverse, and inclusive workforce. This is evidenced by specific critical elements in all performance plans with mandatory objectives, which read as follows: "Recruit, hire and empower highly qualified staff members who reflect the diversity of the nation and the science and engineering community, which includes minorities women and individuals with disabilities."



# **Section II – Recruitment and Community Outreach**

The Foundation maintains a strong focus on outreach through partnerships with the broader community, educational institutions, and professional associations in order to identify and target underrepresented individuals. Community outreach and recruitment is carried out by several active offices, job groups, and working groups. The below section highlights NSF's current partnerships and initiatives.

#### **HRM Division Outreach**

HRM makes every effort to build an inclusive framework within its employee programs to ensure that a diverse and representative population is contacted during outreach, recruitment, and selection efforts. Programs are designed to develop and retain these same high quality employees in order to ensure that NSF can sustain its operations and accomplish its national mission of leadership in STEM research and education.

HRM staff ensures that NSF employment opportunities are widely distributed. To achieve this, NSF participates in the Office of Personnel Management's USAJOBS, which serves government-wide and public audiences for vacancy announcements. In addition, HRM manages a program called "NSF Updates," which allows all individuals interested in NSF employment to receive automatic electronic notification of program and vacancy

#### **INSIGHT** into Diversity

NSF's own Sharon Washington and Dr. Fae Korsmo were featured in the June 2011 Version of **INSIGHT** into Diversity magazine. The article "Breaking the Mold: The **National Science** Foundation attempts to bring diversity to the STEM fields," highlights NSF's focus on broadening participation of groups, institutions, and geographic regions underrepresented in the STEM disciplines.

announcements. At last count there were 134,799 enrolled. Of these subscribers, 73,670 are subscribed to at least one category related to job opportunity announcements.

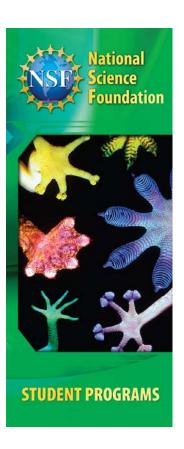
HRM also provides enthusiastic representation at outreach events, including two National Society of Hispanic Professionals career fairs and special events targeting veterans and persons with disabilities. In FY2011, HRM and the Team to Invigorate Marketing and Outreach (TIMO) staff members participated in more than 50 outreach events, most of which were directed at diverse audiences. For a complete list, please see **Appendix A**.

#### **Targeted HRM Recruitment Programs**

HRM manages several recruitment programs targeted for specific populations to include students and disabled and blind candidates. The following section provides a summary of NSF's student educational employment programs and targeted recruitment for disabled candidates.



- Student Temporary Employment Program (STEP) and Student Career Experience Program (SCEP): HRM uses its automated eRecruit process to fill virtually all STEP and SCEP positions. This increases NSF's ability to consider a diverse array of candidates for these positions. HRM has started to focus on individual candidate fields of study and the offices that are recruiting them. STEP vacancies, as well as those for recent graduates, have been posted on websites at local universities with diverse student population in order to reach out to the community and receive a wider pool of applicants.
- ➤ Showcasing Student Programs: In FY2011, TIMO members updated an innovative brochure that targets students and showcases both Federal student programs and those offered through NSF's Office of Integrative Activities. TIMO members also handed out a marketing card for student positions. The card features not only information about student positions, but also NSF funded research.



- Improved Outreach to Disabled Applicants: Throughout FY2011, HRM continued its efforts to improve its ability to connect with applicants with disabilities. The Selective Placement Program Coordinator attended numerous recruitment fairs including the Equal Opportunity Publication (EOP) Career Expo for People with disAbilities and its STEM Diversity Career Expo, as well as conferences such as the Perspectives on Employment of Persons with Disabilities conference. Thanks to this focus, NSF is able to provide timely, accurate, and effective information to interested applicants. The Selective Placement Program Coordinator also made several presentations to HRM staff, organizational managers, and the Virginia Department of Rehabilitative Services, explaining the Schedule A hiring authority and encouraging hiring organizations to consider it as a valuable tool.
- Targeted Hiring of Disabled Candidates: In November 2010, NSF participated in the EOP Career Expo for People with disAbilities. Over 500 individuals with disabilities attended this career expo. The Selective Placement Program Coordinator identified several qualified Schedule A candidates for positions that NSF managers were seeking to fill. Since that time, one Schedule A candidate who attended the Expo was hired for a permanent position at NSF. In addition to this hire, NSF hired another Schedule A candidate from the Virginia Department of Rehabilitative Services (DRS).



- Support of the Visually Impaired: NSF continues to use marketing and outreach materials converted to Braille. NSF also uses outreach materials displayed on compact disc to aid the visually impaired. These materials were used strategically at the National Federation of the Blind Annual Convention and other recruitment fairs targeted towards individuals with disabilities. They are also being used by the NSF Program Officer in charge of outreach to persons with disabilities.
- ➤ Staffing Reminders: HRM Service Teams promote managers awareness of diverse sources of applicants. Service Teams also advise managers of their responsibility to promote a diverse workforce when considering selections.
- ➤ Continued Agency Recognition: NSF received recognition in the broader community for its outreach work. *Equal Opportunity Publications* lists the Foundation as number four (#4) in the top 20 government agencies supporting equal opportunity in 2011. Additionally, *Minority Engineers* and *Women Engineers* ranks NSF in its top 50 employers.

#### **Team to Invigorate Marketing and Outreach**

During FY2011, HRM's Team to Invigorate Marketing and Outreach continued to play a vital role in the Foundation's outreach efforts. TIMO was established in 2009 to identify new recruitment strategies; to evaluate cost, effectiveness and value provided by creative approaches to recruiting; and to recommend recruitment activities that provide the Foundation with the greatest potential for attracting an appropriately broad and deep pool of candidates.

During FY2011, TIMO was involved with many projects. A sample of these activities include updating and purchasing new giveaway items such as notepads and thumb drives for outreach events; providing regular highlights and assistance to the Service Teams for specific vacancies; working with the Office of Budget, Finance and Award Management to coordinate and provide materials for the Regional Grants

#### **TIMO Objectives**

- Determine recruitment strategies to address agency wide staffing needs and diversity goals.
- 2) Research and evaluate a broad range of marketing, outreach, branding and advertising approaches and tools.
- 3) Develop and recommend implementation of new materials and approaches.
- 4) Evaluate and make recommendations to management.

Conferences; and working with the Office of Legislative and Public Affairs to coordinate and provide materials for NSF Days events. This enthusiastic, creative group completed many outreach activities, developed new innovative products, and formed strategic partnerships, which are described in the next few sections.



#### **Evaluation of Social Media and Online Recruitment**

In FY2011, TIMO sought to evaluate NSF's social media and online recruitment efforts with a focus on measuring the effectiveness of outreach geared toward disabled veterans and diverse audiences, especially Hispanic minorities. After extensive research, a current state report was published and presented in August 2011. The findings suggested that NSF needs more up-to-date and engaging content to attract new recruits.

Additionally, a social media and online recruitment recommendations report was delivered in September 2011. TIMO plans to explore NSF's next steps during FY2012, looking into ideas such as improving the careers page, creating a branded LinkedIn presence, and reorganizing the vacancies Twitter feed. Many of the ideas for attracting diverse candidates online start with building awareness of NSF as an employer of choice and then testing different approaches.

#### **TIMO Partnerships**

Over the past few years, TIMO members attended a variety of outreach events. Recently, TIMO members actively recruited at events such as the Historically Black College and University (HBCU) Career Development Marketplace, Career Expo for the disABLED, Federal Hispanic Career Advancement Summit, IT Job Shadow Day, George Mason University Internship and Job Fair, and the Returned Peace Corps Volunteer Job Fair. By attending these events regularly, TIMO has created and nurtured strategic partnerships with many groups, including the following (see Hispanic Community and Outreach section for additional efforts):

➤ National Institute of Standards and Technology (NIST): TIMO established a partnership with NIST and hosted two members from their recruitment staff. As both agencies have similar recruitment challenges, the goal is to share strategies and program ideas for outreach innovation.



- ➤ Returned Peace Corps Volunteers: TIMO partnered with Returned Peace Corps Volunteers for targeted recruitment and featured jobs at their events.
- African American Federal Executives Association: The ODI Champion is a member of this group and presented at their event.
- ➤ Mid-Atlantic Higher Education Recruitment Consortium (HERC): NSF continues to be an active member in HERC to assist in placing dual career couples in the research community. NSF posts jobs on the HERC website and collaborates with HERC members for mutual benefit. This strategic alliance assists in recruiting and retaining Program Officer staff.



- ➤ **Higher Education Dual Career Network (HEDCN)**: The Foundation's membership with the HEDCN allows it to collaborate with the higher education and research community in placing dual career couples.
- Department of Rehabilitative Services and the Virginia Employment Commission: The NSF Schedule A Outreach Specialist has formed partnerships with these organizations and received recognition for her outstanding work.



#### TIMO and ENG

TIMO initiated a program in FY2011 with the goal of forming partnerships with a scientific research, engineering, or education directorate to leverage professional associations already in place to ultimately enhance diversity recruitment and outreach efforts. A secondary purpose of TIMO's initiative is to identify training that needs to be offered in order to provide information on how to manage unconscious bias in the interview process during recruitment efforts. Such training will be part of a broader plan devised for the directorate to assist in its broadening participation efforts.

TIMO is partnering with the Engineering (ENG) Directorate to pilot this program. The pilot group will strive to increase recruitment and outreach activities to underrepresented groups within the scientific research and engineering workforce with the long-term goal of having the Program Officers and other Engineering staff incorporate diversity into their mission statements, resulting in a scientific research and engineering workforce and community from which the entire nation benefits. The process is summarized as follows:

- ➤ ENG will provide TIMO with a list of professional associations with which it already has relationships. Additionally, this directorate will provide information on the List Serves used to inform the outside community of Program Officer and other leadership positions available in ENG.
- A TIMO member will help develop the list by identifying the following: a) additional groups within the professional associations that target underrepresented groups, b) List Serves where Program Officer vacancies can be posted, c) points-of-contact to serve as Champions for scientific jobs at NSF, and d) meetings/events/conferences where NSF Program Officers can serve as Ambassadors to recruit a more diverse scientific workforce.



TIMO representatives will work as members of a project team with the following stakeholders: a) the HRM Service Team for ENG, b) a diversity representative from the ENG Office of the Assistant Director (OAD), c) Broadening Participation representative from the Office of the Director, d) the Committee on Equal Opportunity in Science and Engineering (CEOSE) Designated Federal Officer, e) a representative from NSF's Office of Diversity and Inclusion (ODI), and f) a representative from the Executive and Visiting Personnel Branch (EVPB) and Workforce Planning and Analysis Branch (WPAB) of the Division of Human Resource Management.

## **Veterans Employment Program**

NSF's Veterans Employment Program (VEP) was chartered in March 2010 in response to Executive Order 13518, and a VEP Director was identified. The VEP Operational Plan was then developed and provided to OPM in April 2010, and a VEP Coordinator was hired for NSF in May 2010. From there, VEP has become an integral part of veteran recruitment and hiring efforts at the Foundation.

The NSF VEP Operational Plan (VEOP) focuses on educating, coordinating, and collaborating with the NSF community as well as external veteran employment stakeholders to attract, recruit and benefit from career skills veterans can bring to the NSF workforce. Over a relatively short period NSF

#### **Operational Plan Focus Areas**

- Leadership Commitment
- Marketing Veterans Employment
- Skills Development and Employment
- Information Gateway

increased awareness, established contacts with the veteran community, hosted events, and increased hires from the veteran and disabled veteran population. Further details of this initiative are described in the annual Disabled Veterans Affirmative Action Program (DVAAP) Accomplishment Report.



# **NSF Ambassador Program**

The NSF Ambassador Program began as a pilot in the Directorate for Geological Sciences and the Directorate for Biological Sciences in FY2010. This program directly leverages the knowledge and connections of rotator staff to enhance outreach efforts.



The following table provides a summary of the Ambassador Program's accomplishments in program expansion, establishment of an online presence, and the development of marketing materials in FY2011.

		Ambassador Success in FY2011	
Expansion >		The Ambassador Program Pilot continued and expanded to 58 members	
		representing all Directorates and Offices.	
The Ambassador Program Pilot third quarterly m		The Ambassador Program Pilot third quarterly meeting was held on May 26th.	
Input and assessment from the pilot participants proved positive, and a			
report was dispatched as part of that program.			
The fourth and final quarterly meeting of the Ambassador Program Pilot w			
on August 17, where plans were discussed to roll out the program Foundatio			
wide. A Charter and Operational Plan are currently in development to			
institutionalize the program throughout NSF.			
Online	>	NSF has been averaging about 500 hits per month on its new Rotator Webpage.	
<b>Presence</b> The site features 9 static Ambassado		The site features 9 static Ambassador testimonials, one in video format, that went	
live on the NSF website in February 2011.		live on the NSF website in February 2011.	
Six Ambassadors were videotaped during this period in the develo		Six Ambassadors were videotaped during this period in the development of Rotator	
FAQs. They will be posted online after editir		FAQs. They will be posted online after editing is completed.	
Marketing	>	A new Ambassador trifold brochure was developed and printed in response to	
Materials		feedback by current Ambassadors.	
	$\triangleright$	Additional testimony cards were developed for the Ambassador Program for a total	
		of nine Program Director testimonies that can be handed out at events.	
	$\triangleright$	The main Ambassador recruitment brochure and the Program Director testimony	
	cards continue to be used. A flip business card and book mark are in developm		
	$\triangleright$	NSF is exploring the use of Public Service Announcements to promote the	
		Ambassador Program.	



## **NSF Hispanic Community and Outreach**

NSF focused on strengthening its connection with the Hispanic employee community. An email distribution list called "NSF Hispanic Amigos" was established in FY2010 and continues to flourish. This grassroots group informally and voluntarily connects staff with Hispanic backgrounds. The group sends updates about events, lunches, speakers, and professional development opportunities that might be of interest to Hispanic employees. TIMO members make it a priority to email relevant information to this group at least once per month, including updates about relevant events or internal NSF programs.

In FY2011, the TIMO Chair went to as many of the Hispanic outreach events as possible to help promote careers at NSF and to enhance the Foundation's reputation in the community. NSF's Chair has maintained good relationships with the Mid-Atlantic Hispanic Chamber of Commerce (MAHCC) President and the Hispanic Heritage Foundation (HHF) President, even speaking at the HHF Youth Awards Ceremony in February. NSF maintains the following partnerships with the Hispanic community:

- ➤ Hispanic Heritage Foundation (HHF): The NSF Hispanic Employment Champion, Dr. José Muñoz, and the TIMO Chair met with the HHF CEO and President to explore ways to place Hispanic youth at NSF. The TIMO Chair represented NSF at HHF's Youth Awards Ceremony.
- ➤ National Society of Hispanic MBAs (NSHMBA): The VEP Coordinator began attending NSHMBA events to recruit for NSF's business and operations-focused positions.



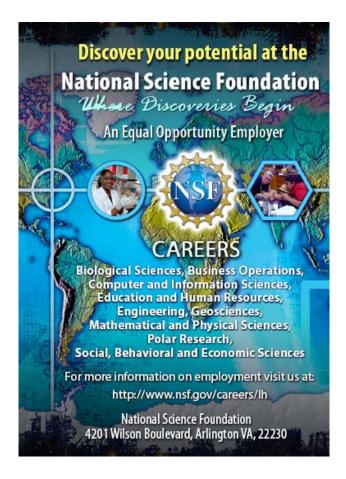
- ➤ Mid-Atlantic Hispanic Chamber of Commerce (MAHCC): The NSF partnership continues with MAHCC. NSF is actively exploring ways to partner with MAHCC for mutual success and has sent representatives to several MAHCC events where NSF employment was showcased.
- Latinos for Hire: NSF has become an active participant in the job fairs held by this group. TIMO is working to enhance the NSF's relationship with the organization.

In addition to these targeted partnerships, NSF was pleased to see improved Hispanic representation at NSF Days. NSF Days workshops saw a total combined registered attendance of 2113 people from 210 institutions. These institutions included 39 Hispanic-serving institutions, a remarkable increase over the two Hispanic-serving institutions participating in FY2010. Additionally, of the 2113 attendees, 28 were from Hispanic-serving institutions, representing a sizeable jump from just five attendees in FY2010.



#### Other NSF Recruitment and Outreach

HRM is not the only branch at NSF actively communicating with and recruiting a diverse group of employees. Other offices have made it a point to interact with a wide variety of individuals, both those that could be future employees and those that simply benefit from NSF's time and knowledge. Full descriptions of the efforts made by various directorates, divisions, and offices across the Foundation can be found in **Appendix B**.





# **Section III – Career Development Opportunities**

# **Career Development**

The NSF Academy provides career development opportunities for all staff at the Foundation in order to promote learning and development across the NSF workforce. The Academy's course offerings are provided to all employees looking to learn and develop, including those from underrepresented groups. In order to direct staff to the training that is most relevant to them, the Academy has identified four "tracks" for development: (1) Leadership; (2) Program Management; (3) Administrative Professionals; and (4) Workforce (all employees). Development opportunities related to each track apply to all NSF employees, including those in underrepresented groups. The below chart provides a summary of the Academy's programs by track. See **Appendix C** for detailed descriptions of these career development programs.

Academy Career Development Programs					
Leadership • New Executive Transition Program					
	Executive Leadership Retreat				
	Executive Coaching Program				
	Executive Development Plans				
	<ul> <li>Transition to Management Workshop</li> </ul>				
	<ul> <li>Leadership/Problem-Solving Skills Course</li> </ul>				
	Leadership Development Curriculum				
	• SES Forum Series				
	<ul> <li>Enhancing Innovative Potential Workshop</li> </ul>				
	<ul> <li>Supporting Employee Development Workshops</li> </ul>				
	<ul> <li>EEO Training for Managers and Supervisors</li> </ul>				
Online Leadership Development Courses					
Program	Program Management Training Resources				
Management	Merit Review Basics Workshop				
	Program Management Seminar				
	NSF in the Federal Context Training				
	eBusiness Curriculum Project				
	<ul> <li>Program Management Training Needs Assessment</li> </ul>				
	Proposed Program Management Training Resources				
Program Support	<ul> <li>Competency Models and Profiles</li> </ul>				
	<ul> <li>Learning Maps and Career Paths</li> </ul>				
	<ul> <li>Need Analysis for Administrative Professionals</li> </ul>				
	Course Analysis				
Workforce	Individual Development Plans				
	<ul> <li>Creating an Individual Development Plan Workshop</li> </ul>				
	After Hours Program				
	<ul> <li>Avenues for Career Enhancement (ACE)</li> </ul>				
	<ul> <li>Independent Research and Development (IR/D)</li> </ul>				
	Online Training				
	Diversity and Inclusion Programs				



## **Promoting Diversity and Inclusion**

NSF's Office of Diversity and Inclusion supports career development by providing information and training opportunities on the various laws, regulations, executive orders, and NSF policies on Equal Employment Opportunity (EEO), diversity, and civil rights. Specifically, ODI provides the following developmental opportunities to all employees:

#### Office of Diversity and Inclusion Mission

- 1) Ensure the agency is in compliance with the laws and regulations governing Federal sector equal employment opportunity (EEO) and civil rights, and
- 2) Foster a diverse and inclusive work environment that ensures equal opportunity through policy development, workforce analyses, outreach, and education to best serve NSF's employees and stakeholders.
- New Employee Orientation: This fiscal year, ODI presented at all NSF orientation sessions for new employees, held approximately every two weeks. These orientation presentations provide an overview of the services offered by ODI and also include information on the discrimination complaint process, reasonable accommodations for individuals with disabilities, harassment (sexual and non-sexual), and other equal opportunity and related topics including the No FEAR Act. ODI also provided similar information at the Program Management Seminar as related to EEO, civil rights, and diversity and inclusion, with a focus on laws and functions that relate to recipients of Federal funds at NSF.
- ➤ **Diversity Training:** ODI offers EEO and diversity training opportunities to directorates and offices upon request. In FY2011, ODI provided EEO briefings to more than 300 employees in various divisions/offices.
- ➤ Management Training: ODI is also charged with ensuring managers and supervisors are trained in the various EEO components pursuant to requirements of the Management Directive-715 (MD-715), promulgated by the Equal Employment Opportunity Commission (EEOC) in 2003. This fiscal year, ODI devised and implemented the course "NSF Becoming a Model EEO Agency: The Role of Managers and Supervisors" which was consistent with requirements in the MD-715. The course was also geared toward assisting NSF in taking substantial steps toward attaining model EEO status per criteria established by the EEOC, which is a performance goal within NSF's Strategic Plan. The course was completed by 100% of NSF managers and supervisors.
- > Sponsorships and Partnerships: ODI sponsors, in conjunction with directorates and other offices, special emphasis observances that highlight NSF's diversity and provides training opportunities for employees to learn about people of diverse cultures. This fiscal year, ODI sponsored, in collaboration with eight directorates/offices, twelve Special Emphasis



Programs based on the following observances: National Hispanic Heritage Month, National Disability Employment Awareness Month, National Native American Month, Martin Luther King Jr. Observance, Black History Month, Women's History Month, National Asian Pacific American Month, and Women's Equality Day.

- Diversity Dialogue Series: To enhance its training in the area of diversity and inclusion, ODI implemented and sponsored a "Diversity Dialogue Speaker Series" which creates an open, unbiased forum for the exchange of ideas, to enhance the intellectual enrichment of the community, and to create a forum where speakers foster and encourage creative thought.
- ▶ Disability Webinar: ODI implemented NSF's first Disability Webinar with more than 200 internal and external participants and a webinar with more than 22 vendors. Additionally, ODI implemented a new training component entitled "Workplace Diversity: An Overview of the 10 Lenses" which increases awareness of the perspectives held by individuals and organizations regarding diversity and the resulting behaviors that may be exhibited as a result of those different perspectives.
- ➤ Limited English Proficient Services: In FY2011, ODI led NSF's efforts in developing and implementing a system by which limited English proficient (LEP) persons can access the agency's services. A LEP Working Group was charged with devising NSF's LEP Plan, which received approval from the Department of Justice, in which the goal was to issue guidance to potential recipients on their legal obligations and ensure that NSF's practices were in accord with Title VI of the Civil Rights Act of 1964 barring discrimination based on national origin. Through its collaboration with NSF's Equal Opportunity Liaisons (EOLs), ODI is able to ensure communication between its office and other NSF units. EOL's provide assistance within their directorates and offices in areas of diversity and inclusion and other EEO related areas, including ODI's strategic planning efforts.
- ▶ Broadening Participation Working Group (BPWG): ODI served as a representative of the Broadening Participation Working Group, which included: 1) Participating in discussion issues relative to diversity; 2) Presenting on civil rights issues impacting recipients of Federal funds at NSF Regional Conferences in Salt Lake City, Utah and Nashville, Tennessee, and at a NSF workshop for HBCUs in New Orleans, Louisiana serving on a Task Force regarding potential barriers to African Americans and Women in the Federal workplace; 3) Presenting on EEO and diversity issues at the African American Federal Executives Association's 7th Annual Training Workshop; and 4) Serving as a partner in the Title IX Working Group through the Department of Justice.



# **Section IV - Mentoring**

NSF is committed to providing mentoring opportunities to employees interested in improving their existing skills and learning new ones in a one-on-one environment with an experienced teacher. In FY2011, there were three main mentoring initiatives at NSF, which are described below.

## **Mentoring and Coaching Workshop**

In July 2011, the NSF Academy launched "Mentoring and Coaching," a workshop on mentoring employees as a supervisor. The pilot was well-received, and the workshop has now been offered three times with excellent attendance and strong feedback.

## **NSF Mentorship Program**

In 2010, the NSF Academy developed a proposal to launch an NSF-wide mentorship program. In July 2011 a pilot program was launched for the NSF OIG Office of Audits. The program involved strategic pairing of six mentors with six mentees, and the establishment of two 3-person peer mentoring groups. Individuals were paired with someone outside their chain of command based on a fit between their self-reported goals, a self-report of leadership skills, and their tenure with the organization. Mentor/mentee pairs attended a 4-hour program orientation, where they engaged in goal and expectation-setting exercises following discussion of important factors to consider. The training also provided participants with a toolbox of activities to consider engaging in throughout their mentorship. The three-month evaluation of this program began in October 2011. The NSF Academy plans to launch the program NSF-wide in January 2012.

# **Veterans Mentoring Group**

In FY2011, a Veterans Mentoring Group was established at NSF. This group targeted veteran mentors to help develop veteran mentees by providing relevant guidance, insight, and experience. Twenty-eight veterans expressed a desire to participate in the pilot of this program and ten were selected for the initial group. Mentors are able to discuss veteran-specific issues and concerns with their mentees and offer general advice about working at NSF. This program supports both professional development and retention among veterans and NSF plans to expand the initiative based on the success of the pilot program.





# Appendix A – Outreach and Conference Events for FY2011

	Event	Location	Date	Focus
	Outreach			
1	Colorado Tech University Virtual Career Counseling	Virtual	13-Oct	Veterans
2	Joint Henderson Hall/Ft. Myer career fair	Arlington, VA	14-Oct	Veterans
3	Henderson Hall Transition Panel Brief	Arlington, VA	19-Oct	Veterans
4	HBCU Career Development  Marketplace  Washington, DC 20-Oct		Diversity	
5	Regional Grants Conference	Salt Lake City, UT	25-26 Oct	
6	Department of Labor Veterans Career Transition Briefing	DOL Woodbridge	29-Oct	Veterans
7	MCB Quantico Veteran Transition Employer Panel	Navy/Marine Family Service Center MCB Quantico	5-Nov	Veterans
8	3 <sup>rd</sup> Annual Business Steps Up: Hiring our Heroes	Washington, DC	10-Nov	Veterans
9	Careers Expo and the disABLED	Washington, DC	19-Nov	Persons with Disabilities
10	Federal Hispanic Career Advancement Summit	Bethesda, MD	29-30 Nov	Hispanic
11	2010 Perspectives on Employment of Persons with Disabilities	Hyatt Regency Bethesda, MD	8 – 10 Dec	Persons with Disabilities
12	Senior Enlisted TAP Workshop	Henderson Hall	6-Jan	Veterans
13	ENG Veteran Program (Students Program)	ENG Conference Room 546	27-Jan	Veterans
14	UMUC Military Students Program Collaboration with Director and Staff	Largo, MD Campus	1-Feb	Veterans
15	National Society of Hispanic MBAs Network/Outreach	Mio Restaurant	3-Feb	Hispanic
16	Hispanic Heritage Foundation National Youth Awards	Washington, DC	9-Feb	Hispanic
17	Pentagon G-1 Military Transition Assistance Initiative	Pentagon HQ G-1	10-Feb	Veterans

	Navy Safe Harbor (Veteran	2 Navy Annex,		
18	Wounded Warrior Program)	Pentagon	15-Feb	Veterans
19	AAAS Annual Meeting	Washington, DC	17-21 Feb	Recruitment/Diversity
20	Army Wounded Warriors Conference	Fort Belvoir, VA	23 – 24 Feb	Veterans
21	George Mason U Internship and Job Fair	Fairfax, VA	24-Feb	Recruitment/Diversity
22	RPCV Job Fair	Washington, DC	24-Feb	Recruitment/Diversity
23	Navy/Marine Corps Wounded Warrior Regiment Bethesda	Bethesda, MD	4-Mar	Veterans
24	M4Life/Wounded Warrior Program	Marine Corps Base Quantico, VA	9-Mar	Veterans
25	Career Expo & the disABLED	Washington, DC	31-Mar	Persons with Disabilities
26	Richard Tapia Conference	San Francisco, CA	3-5 Apr	Recruitment/Diversity
27	MAHCoc event/business opening	Arlington, VA	13-Apr	Recruitment/Diversity
28	AAFEA	Newport News, VA	19-Apr	Diversity
29	Henderson Hall Transition Career Fair (Marines, Navy, Army, Spouses)	Henderson Hall	21-Apr	Veterans
30	PMF Job Fair	Washington, DC	20-21- Apr	Recruitment/Diversity
31	2011 Nuestro Futuro, Latino Education Conference VIP Reception	Washington, DC	20-Apr	Hispanic
32	2011 Nuestro Futuro, Latino Education Conference	Washington, DC	21-Apri	Hispanic
33	2011 Nuestro Futuro, Latino Education Conference	Washington, DC	27-Apr	Hispanic
34	IMAGE Inc. & Federally Employed Women Hispanic Outreach Conference 2011	Orlando, FL	25 – 29 April	Diversity
35	VA DoRS Job Club	Alexandria, VA	26-Apr	Veterans / Persons with Disabilities
36	Veterans Employment Panel	Washington, DC	10-May	Veterans
37	Veterans Employment	Woodbridge, VA	11-May	Veterans
38	Latinos for Hire	Landover, MD	18-May	Hispanic
39	Asian Fortune	Fairfax, VA	13-Jun	Diversity
40	Hiring Heroes Career Fair	San Diego, CA	13-Jul	Veterans
41	San Diego State University, Student	San Diego, CA	13-Jul	Veterans



	Veteran Career Counselor Site Visit				
42	University of San Diego	San Diego, CA	14-Jul	Veterans	
43	Junior Officer TAP Workshop	Henderson Hall	21-Jul	Veterans	
44	National Federation of the Blind	Orlando, FL	3 – 8 Jul	Persons with Disabilities	
45	American Intercontinental University Virtual Career Fair	Virtual NSF	20-Jul	Veterans	
46	Colorado Tech University Virtual Career Fair	Virtual NSF	2-Aug Veterans		
47	Congresswoman Eleanor Holmes- Norton's 14th Annual Job Fair	Washington, DC	9-Aug	Recruitment/Diversity	
48	RPCV Job Fair	Washington, DC	11-Aug	Recruitment/Diversity	
49	4th Annual Federal Hispanic Career Advancement Summit	Alexandria, VA	20-21 Sept	Hispanic	
50	Quantico Career Fair	Quantico	22-Sept	Veterans	
51	Johns Hopkins U. Career Fair	Baltimore, MD	28-Sept	Recruitment/Diversity	
	Conferences				
1	Veterans Symposium	Washington, DC	26-Jul	Veterans Conference	
2	Department of Labor Workforce Recruitment Program Hiring Brief	200 Constitution Ave, DC	9-Feb	Veterans Conference	
3	Hispanic Recruitment Forum	OPM	11-Feb	Hispanic	
4	OPM Recruitment Training	OPM	16-Feb	Diversity	
5	OPM VEPM Quarterly Seminar	American Institute of Architects	25-Jan	Veterans Conference	
6	USPTO STEM Conference	Alexandria, VA	20-Sept	Diversity Conference	
7	STEM Diversity Roundtable	Fairfax, VA	28-Sept	Diversity Conference	
8	Diversity Solutions Best Practices	Washington, DC	15-Sept	Diversity Conference	
	Internal NSF Events				
1	NSF Disability Awareness Forum	NSF	28-0ct	Persons with Disabilities	
2	Veterans Day Event	NSF	9-Nov	Veterans	
	IT Job Shadow Day	NSF	2-Feb	Diversity	
3	NSF AMG/AO Meeting	NSF	2-Feb	Veterans	
4	NSF Memorial Day Event	NSF	26-May	Veterans	



# Appendix B - Directorate-Specific Equal Opportunity Efforts

# Office of Legislative and Public Affairs (OLPA)

The Office of Legislative and Public Affairs participates in "NSF Days," which are one-day workshops targeted at junior university faculty and others starting or restarting research careers. NSF Days are designed to stimulate new interest in NSF programs at institutions that have not been among the agency's traditional customers, as well as at premier research institutions.

During FY2011, OLPA held several NSF Days workshops. The host institutions and events included the University of Kansas, Rio Hondo College, Princeton University, Louisiana Tech University, Kentucky State University, University of San Diego, Oregon State University, University of Kansas, Texas State University – San Marcos, Indiana University of Pennsylvania, and EPSCoR NSF Day in New Mexico.

NSF Days workshops saw a total combined registered attendance of 2113 people from 210 institutions. Of these, 97 were research institutions, 125 were undergraduate institutions, 45 were community colleges, and 88 were other institutes, organizations, educational agencies, businesses, etc. These institutions included 54 minority-serving institutions including 10 HBCUs and 39 Hispanic-serving institutions. Of the 2113 attendees, 1198 were from research institutions, 681 were from undergraduate institutions, and 119 were from community colleges. Seventy-nine people attended from HBCUs and 28 people were from Hispanic-serving institutions. This represents a sizeable jump from 33 to 79 attendees from HBCUs and from 5 to 28 attendees from Hispanic-serving institutions. It is also a marked increase in minority serving institutions from 6 to 10 HBCUs and 2 to 39 Hispanic-serving institutions.

# Office of Budget, Finance and Award Management (BFA)

NSF's Office of Budget, Finance and Award Management participates in the NSF Regional Grants Conferences, which are two-day events targeting recruitment of both researchers and administrators that focus on a wide range of topics including an introduction to NSF, guidance on proposal preparation and award administration, merit review criteria, and the introduction of new programs and cross-cutting initiatives. While they are called "regional" conferences, participation at these events typically brings together faculty and administrators from all across the United States. The Fall 2010 conference was held in Salt Lake City, UT, and was co-hosted by the University of Utah and Utah State University. The Spring 2011 conference was held in Nashville, TN, and was hosted by Vanderbilt University. Institutional representation at the conference closely tracks to the NSF awardees portfolio. For example, in FY2010, 9% of NSF

awardees institutions were HBCUs, HSIs, or TCUs. In contrast, 8% of Regional Grants Conference attendees represented these institution types.

In January 2011, BFA conducted a one-day workshop for HBCU institutions that was hosted by Xavier University in New Orleans, LA. For this workshop, NSF invited a faculty member and research administrator from each of the 105 HBCU institutions to attend. A major goal was to identify and describe funding opportunities and initiatives that cover the broad spectrum of NSF-funded research. In addition, NSF Program Officers and BFA staff provided an overview and discussion of the NSF proposal preparation and merit review processes, as well as critical information about post-award management issues. Two hundred twenty-five faculty and administrators representing 75 institutions attended this workshop.

## Office of Integrative Activities (OIA)

NSF's Office of Integrative Activities sponsors a 10-week Summer Scholars Internship Program (SSIP) for undergraduate and graduate students. The mission of NSF's SSIP is to develop undergraduate and graduate student potential through exposure to relevant science and engineering policy, research and education issues and programs; and to encourage students to earn graduate degrees and pursue careers in STEM fields. NSF currently offers limited summer internships through the following organizations:

- Hispanic Association of Colleges and Universities
- Quality Education for Minorities Network
- Washington Internships for Native Students

Such programs allow underrepresented students in science and engineering to obtain valuable experiences with the Federal government at NSF. This year, NSF hosted a total of 30 students of which nine were Hispanic, six were Native American, six were African American, three were Asian American, and six were non-minority.

OIA also administers the Foundation-wide AAAS Science and Technology Fellowship Program, a year-long program that offers professional development opportunities for scientists and engineers to learn about the intersection between science and policy. The program at NSF is designed to provide scientists and engineers with exposure to Federal policy and insight into pertinent STEM issues, and provide an opportunity to learn about and contribute to the STEM enterprise. During the 2011 fellowship year, there were 32 AAAS Fellows placed at NSF, including five African Americans, two Hispanics, one Native Alaskan, and one Asian American.



## Office of Polar Programs (OPP)

In FY2011, the Office of Polar Programs supplied materials to diversity-oriented conferences such as the SACNAS (Society for the Advancement of Chicanos and Native Americans in Science) annual conference. OPP also supplied more polar-related educational resources to the SACNAS conference in San Jose, CA, in October 2011. Furthermore, OPP contributed materials for the Division of Human Resource Development (HRD) JAM (Joint Annual Meeting) on "Inclusive Excellence" in June 2011 in Washington, DC, which included providing a staffed table of polar materials.

## **Directorate for Geosciences (GEO)**

The Directorate for Geosciences was very involved in community outreach in FY2011. In order to help introduce NSF to potential recruits, explore diverse grant opportunities, and broaden knowledge of the agency, GEO:

- Participated in a special session on STEM opportunities for Native American students during the Administration for Native Americans annual conference.
- Hosted a meeting with NASA, NOAA, and USGS participants to meet with representatives from the Institute for Broadening Participation, to discuss inter-agency support for the Minorities Striving and Pursuing Higher Degrees of Success in Earth System Science (MS PHD'S) program.
- Met with Jimmy Adegoke (Executive Director, Council of Scientific and Industrial Research, Division of Natural Resource and Environment, Pretoria, South Africa) to discuss potential research and education collaborations between the U.S. and South Africa.
- Funded a large award to SACNAS that will provide student travel grants to undergraduate and graduate students interested in the geosciences, to help them attend the annual SACNAS conference.

To help broaden participation on GEO panels and in the reviewer pools, Program Officers were strongly encouraged to work towards boosting and broadening the under-represented minority participation. This included specific section meetings to discuss the need for diversity and ways to accomplish this goal. Revised descriptions of expectations in performance plans have been developed on diversity and broadening participation for consideration in the division.

# **Directorate for Mathematical and Physical Sciences (MPS)**

The Directorate for Mathematical and Physical Sciences has taken several steps to increase diversity at NSF. In the early summer of 2008, a dozen MPS Program Officers formed a directorate-wide working group on broadening participation. The working group continues to



meet monthly and reviews briefings on divisional activities, presentations by other directorate representatives, and discussions of issues relevant to broadening participation at NSF. Many members participate in NSF, local, and regional workshops, symposia, and outreach events, on behalf of the MPS working group. In the fall of 2009, the MPS Assistant Director requested that the MPS Advisory Committee form a subcommittee on broadening participation, and this subcommittee regularly engages with the MPS working group. Lastly, MPS Program Officers serve as members of the NSF-wide Implementation Group for the ADVANCE Program, geared toward increasing the representation and advancement of women in academic science and engineering careers.

In FY2011, the NSF Distinguished Lecture Series in Mathematical and Physical Sciences had five of its nine lectures given by members of under-represented groups. One of these distinguished lectures was on broadening participation in science and engineering. Another was given by the Past President of the National Organization of Black Chemists and Chemical Engineers.

MPS consists of five divisions, and their individual efforts with respect to broadening participation are discussed below:

### **Division of Astronomical Sciences (AST)**

Program Officers in AST are sensitive to issues of diversity and encourage the participation of under-represented groups in research activities supported by the Division. Such considerations are part of the decision-making process for recommendations for funding of research grants. In several cases, special efforts were made by Program Officers to provide supplements to awards that enabled the involvement of minority researchers and those researchers and students who are at institutions underrepresented in the AST portfolio.

#### AST activities have included:

- An AST Program Officer was interviewed for an article on the status of minorities in astronomy for "Spectrum," the newsletter of the AAS Committee.
- As part of the mitigation of the cultural impact of the construction of the Advanced
  Technology Solar Telescope, AST funded the first year of a ten year award to the
  University of Hawaii Maui College. The goal of the program will be to encourage native
  Hawaiians to pursue studies in STEM fields. The program will integrate STEM education
  with native Hawaiian culture.
- AST made awards to support the:
  - Meeting of the National Society of Black Physicists/National Society of Hispanic Physicists



- 'Women in Physics' conference held by the American Association of Physics Teachers
- Annual Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) conference
- o 'Akamai Workforce Initiative' Professional Development Course

#### **Division of Mathematical Sciences (DMS)**

Increasing diversity and broadening participation in the mathematical sciences continue to be priorities for the Division of Mathematical Sciences. DMS pursues these goals in all aspects of its operations: the language of solicitations, the organization of panels, the review and recommendation of proposals, and the management of Mathematical Sciences Research Institutes. DMS integrates diversity and broadening participation into its portfolio of programs and everyday management practices. This is an ongoing long-term effort, not a one-time occurrence.

A few of the many of DMS awards active in FY 2011 that have especially strong diversity components are as follows:

- Two FY2011 grants support the renewal of the EDGE Program. EDGE is a comprehensive mentoring and training program designed to support the academic development and research activities of women in mathematics. By ensuring success in Ph.D. programs, the principal investigators hope to transform the mathematics community by increasing the number of women, particularly from minority groups, who assume leadership roles in academia, industry, and government.
- DMS, along with each of the other MPS divisions and OMA, as well as several other units throughout NSF, is supporting costs for a total of over 1000 under-represented students to attend the National Conference of the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) over a three-year period.
- Math Institutes Diversity Initiative Collaborative Proposal. This award supplement supports a series of workshops for members of groups that have been historically underrepresented in the mathematical sciences. Eventually these efforts are expected to increase participation of underrepresented groups in all levels of mathematical professions.

#### **Division of Materials Research (DMR)**

The Division of Materials Research staff is highly diverse and consists of 23 Program Directors, two executives and one AAAS fellow, there are nine females and 17 males. Of these, there are two Asian, four Hispanic, and two African American employees. DMR also has one employee in each of the categories of persons with disabilities and LGBT. Additionally, in the administrative



unit, there are nine females and one male. Of these, seven are African American, one is Hispanic and two are Caucasian.

At the DMR retreat in September 2011, the division participated in training provided by ODI. As a result of the training, the DMR Diversity Working Group is being charged with leading an "equity workshop" on racial/ethnic minorities in materials science, as well as other activities. DMR also has a public broadening participation website and a divisional diversity plan.

Awards - In FY2011, DMR received 336 proposals from females and funded 22% of these. There were 129 proposals from under-represented minorities for a funding rate of 21%. The overall funding rate for all proposals handled by DMR in FY2011 was 19%.

The Partnerships for Research and Education in Materials (PREM) program funds institutions serving under-represented groups in science and engineering to link with DMR-funded centers and facilities in joint materials research and education projects. DMR, with co-support from the Division of Human Resource Development (HRD) and the MPS Office of Multidisciplinary Activities, is supporting 14 continuing awards at MSIs at a total of \$5.58 million in FY2011 (including 7 HSI and 6 HBCU). This year, the PREM PIs met jointly with the MRSEC PIs at the University of Puerto Rico Humacao to foster a discussion of diversity issues between centers and minority serving institutions. DMR provided support for 45 students to attend, including 16 from the host institution. Of these, 31 students gave formal poster presentations.

DMR is planning and sponsoring the Workshop on Professional Development of Under-represented Minority Master's and Doctoral Engineering Students, to be held in November 2011. This is the third and final workshop in a series of workshops that brings 14 Institutional teams (seven master's and doctoral students and three faculty/advisors) together to provide resources and skills to under-represented students to successfully finish and seek careers in STEM. ENG was the primary sponsor of the workshop with DMR and OMA contributions. Participation of members of under-represented groups is an important consideration when evaluating Research Experiences for Undergraduates (REU) Site proposals and REU supplement requests to DMR. The 700 REU program participants are 40% racial/ethnic minority and 40% female. There were 20 REU supplements awarded to minority students.

Review - DMR strives to include reviewers from under-represented groups. For example, for the triennial Materials Research Centers and Teams (MRCT) Competition, there were 256 unique reviewers for the three phases of the competition (pre-proposal, mail review, and reverse site visits) – 53 females (21%), 32 minorities (12.5%).



## **Division of Physics (PHY)**

In FY2011, PHY participated in several specific activities aimed at broadening participation including the following:

- 21st Century Astronomy Ambassadors Program: A summer academy for high school students at University of Texas at Brownsville (UTB). UTB is a minority serving institution where more than 90% of the students are of Hispanic origin in one of the most economically underdeveloped yet fast growing regions of the U.S.
- Professional Skills Development for Women in Physics. These workshops were modeled
  on a successful outline developed by the Committee for the Advancement of Women in
  Chemistry (COACh). The workshops focused on first strengthening communications skills
  of the participants, and second on negotiating strategies for career advancement. Each
  workshop is aimed at a different female population: tenured faculty, non-tenured
  faculty and finally at those in non-academic physics research.
- The LIGO Science Education Partnership is a somewhat unique project that combines
  the efforts of a cutting-edge research laboratory, a Historically Black University
  (Southern University of Baton Rouge), a State educational reform agency, and a leading
  museum that specializes in informal science education. The focus of the project is the
  creation of an effective center for teacher training and teacher education centered on
  LIGO activities in Louisiana.

#### **Division of Chemistry (CHE)**

CHE has sponsored (along with other NSF and interagency partners) a series of workshops in diversity (gender in 2006, race/ethnicity in 2008, disability status in 2009). The research community has requested continued activity in this area. Therefore, CHE has funded a National Diversity Equity Workshop (NDEW) with the goal of establishing diversity equity in leading research-active chemistry departments. NDEW 2011 drew its participants from the chairs of these departments and experts from the social sciences to help identify impediments to diversity equity in the chemical sciences as well as effective practices to be implemented by the Chairs. The workshop was highlighted in *Chemical and Engineering News*, Feb. 28, 2011, "Diversifying Chemistry Faculty" and CHE expects to continue its leadership and investment in this critical area.

# **Directorate for Computer and Information Science and Engineering (CISE)**

During 2011, CISE reorganized its education and workforce programs by merging the Broadening Participation in Computing (BPC) and CISE Pathways for Undergraduate Education (CPATH) programs into a single program – Computing Education for the 21st Century (CE21) – with broader objectives. The new CE21 Solicitation – joint with the Directorate for Education and Human Resources and the Office of Cyber Infrastructure – ran its first competition this



year. CE21 focuses on the K-14 education pipeline. It includes an emphasis on educational research on the teaching and learning of computing and, most notably, it includes a strict requirement that all awards address broadening participation and it underscores this requirement by making it a third review criteria.

The former BPC program funded 13 Alliances, each a large regional or national collaboration of academic institutions, educators, professional societies, and community and industry partners, which are still in existence today. In the aggregate, the BPC Alliances address the engagement and education of students from those groups that have traditionally been underrepresented in computing: African Americans, Hispanics, Native Americans and indigenous people, persons with disabilities, and women. The Alliances have created a set of best practices, educational resources, advocacy networks, outreach and engagement programs, and forums that increase awareness, access, engagement, and inclusion for all students. The current plan is to encourage these Alliances to work together to form a national resource or national cyber infrastructure in support of broadening participation in computing.

All conferences and workshops funded by CISE support and encourage diversity of participation; however, the following include explicit support for participation of students and/or postdocs from under-represented groups:

- 2011 Grace Hopper Celebration of Women in Computing
- SuperComputing '11
- 2011 Richard Tapia Celebration of Diversity in Computing
- Women in Bioinformatics initiative at the International Conference on Bioinformatics and Computational Biology (ACM-BCB)
- Broadening Participation at the Computational and Systems Neuroscience Conference (Cosyne) Student Research and Educational Activities at ACM SIGMOD 2012— in particular, part of this award involves the participation of female and underrepresented students and one of the conference's activities is "a female student mentoring workshop"

CISE Staff Recruitment: CISE recruitment for Program Directors and selection processes for panel service are always conducted in a way that ensures as diverse a pool of candidates and panelists as possible. Also, over the last year, CISE has made use of the Non-Paid Veteran Work Experience Program to fill Program Assistant positions. This program is designed to enhance employment opportunities for transitioning disabled veterans within the Federal government.



## **Directorate for Biological Sciences (BIO)**

The Directorate for Biological Sciences is committed to promoting diversity in the workplace. In order to recruit diverse talent and raise awareness of NSF opportunities. During FY2011, BIO accomplished the following:

- BIO Program Directors were involved in planning, and assisted with, staffing the NSF booths at the SACNAS Conference and AISES Conference answering questions from students and faculty attendees.
- A group of BIO Program Officers hosted a special session at ESA to present on opportunities for Minority Serving Institutions to a group of PIs and university representatives from the Science and Engineering Alliance (SEA). They discussed specific opportunities within BIO as well as NSF-wide opportunities that support both PIs from underrepresented groups and those working at institutions which serve underrepresented groups.
- One BIO Program Director made several presentations at NSF and at national conferences. One example included a presentation on BIO programs at the NSF Partnership for Research and Education in Materials (PREM) PI Meeting in Arlington, Virginia.
- Another BIO Program Director visited with faculty at Haskell Indian Nations University to discuss training opportunities and faculty perspectives in the challenges facing STEM training at Tribal Colleges and Universities.
- A Program Director from BIO also visited two Historically Black Colleges and Universities (HBCU) in Mississippi to conduct outreach. The purpose was 1) to inform the administration and faculty of these HBCUs of the opportunities for support of infrastructure, research and education in the biological sciences at the NSF, and 2) to encourage faculty to submit proposals to the September 6<sup>th</sup>, 2011 deadline.

# Directorate for Social, Behavioral, and Economic Sciences (SBE)

SBE encourages all of its sub-divisions to consider diversity in all their activities. Examples of their work in FY2011 are below:

#### **Division of Social and Economic Sciences (SES)**

The science and professional staff within the SES directorate have participated in a number of activities in such areas as community outreach, recruitment, career development, and mentoring. Many of these activities are consistent with NSF's commitment to broadening participation. For example, they have provided guidance on funding opportunities and proposal preparation at a variety of NSF sponsored events (e.g., NSF Regional for Minority



Serving Institutions held at Xavier University) as well as at other invited forums including conferences at Hispanic serving institutions (e.g., Florida International University), professional organizations (e.g. American Sociological Association, the Midwest Sociological Association, and Southern Sociological Society) as well as diversity institutions (e.g., National Center for Institutional Diversity). They have mentored formally in CeMENT: The CSWEP Mentoring Program for female junior faculty in Economics, and informally in the American Economic Association Minority Summer Program. And, at least one Program Officer has worked with an array of SBE investigators to organize a workshop on Critical Race Theory.

#### **National Center for Science and Engineering Statistics (NCSES)**

NCSES appreciates that differences within the workforce improve group dynamics and help create an environment where everyone can perform to their full potential. NCSES successfully completed nine recruitments during FY2011. Eight of the nine recruitments were open to all sources, and all were advertised widely through USAJOBS. To identify and encourage a broad range of individuals to consider the available positions, NCSES management and staff engaged the wider statistical community in the candidate searches. Among the hires, three are male and six female; four are minorities; and one was hired through the STEP program.

#### **Division of Behavioral and Cognitive Sciences (BCS)**

In terms of the science staff, BCS routinely advertises Program Officer positions with SACNAS and diversejobs.net (the online resource for Diverse Issues in Higher Education). Additionally, the Division Director spoke with the head of sponsored research at Gallaudet about recruiting rotators from that university. Ultimately, BCS also hired two female rotators as program directors in FY11.

For the administrative staff, the division supported multiple activities to enable the staff to learn about the sciences BCS supports, as well as a means for enhancing their skills and training. BCS also provided special opportunities for the administrative staff to attend local site visits (e.g., the Visual Language and Visual Learning Center) and local professional meetings (e.g., the American Psychological Association annual meeting).

# **Directorate for Engineering (ENG)**

The Directorate for Engineering provides unique and innovative programs to help broaden participation within the science and engineering community. As ENG grows and strengthens this pipeline of engineers, the Foundation has a broader and more diverse pool of applicants for many positions. Some examples of ENG's programs and initiatives during FY2011 are as follows:



- Broadening Participation Initiation Grants in Engineering (BRIGE) Program: BRIGE is a
  unique and innovative program to support early-career investigators to conduct
  research in ENG disciplines. One unique feature of this program is that it requires and
  supports brilliant ideas for broadening participation: grantees must reach out, motivate,
  and inspire women, underrepresented groups, and persons with disabilities to pursue a
  career in an engineering discipline. As such, the program requires a diversity plan to be
  included as a separate section in the proposal. In 2011, 30 BRIGE awards, 15 women and
  15 men, were supported by the ENG Diversity and Outreach Office.
- Graduate Research Diversity Supplements (GRDS): The ENG Diversity and Outreach
  Office collaborated with the ENG Division Directors and successfully co-funded 30 GRDS
  awards. These awards will assist a total number of 52 ENG students, many of whom are
  from underrepresented groups.
- Workshops: ENG focused on supporting a variety of diversity workshops to understand the challenges facing women, underrepresented groups and persons with disabilities and to collect and disseminate strategies and tools to promote their success in the engineering fields. In addition, the Directorate provided opportunities to create national and international research collaboration as well as catalyzed partnerships, networking and mentoring among women and minorities. Workshops convened included the Problem Solver Conference, Best Practices for Recruitment and Transition of Engineering Students from Community Colleges to Four Year Institutions, Enabling Participation of Hispanic Students in SHPE Activities, and many more.
- Non Paid Work Experience Program (NPWE): An employee in the ENG Front Office was hired through the Veteran Administration's NPWE program.

# **Directorate for Education and Human Resources (EHR)**

#### **Division of Human Resource Development (HRD)**

HRD is NSF's primary agent for implementing programs and activities that enhance the quantity, quality and diversity of human capital engaged in our nation's STEM research. A principal focus of HRD is to ensure access to and full participation in STEM through increased, improved and diversified opportunities; enhanced quality in the educational experience; and hands-on research experiences. HRD plays a central role in increasing opportunities in STEM education for individuals from historically underserved populations—particularly minorities, women and persons with disabilities. Further, HRD supports the development of the educators, researchers, and institutions dedicated to serving these population groups.



Programs and activities within HRD have a strong focus on partnerships and collaborations in order to maximize the preparation of a well-trained scientific and instructional workforce. Examples of these programs and activities are as follows:

- HRD's Tribal Colleges and Universities Program (TCUP): TCUP provides support to the nation's tribally-controlled colleges and universities, and to Alaska Native-serving and Native Hawaiian-serving institutions of higher education, to promote the development and improvement of STEM instruction and infrastructure. Since 2001, TCUP has provided more than \$100 million to eligible institutions seeking to initiate or expand course offerings, including the establishment of new STEM degree programs (including the first engineering baccalaureate program at a Tribal college), through curriculum development, faculty professional development and opportunities, and expansion of faculty ranks; or to increase the enrollment and graduation rates of indigenous students in those courses, through remediation, instructional support, technology support, and research opportunities. In FY2011, HRD also provided technical assistance to faculty from Tribal Colleges through a TCUP Leadership Workshop.
- HRD's Louis Stokes Alliances for Minority Participation (LSAMP): Launched in 1991, the
  main goal of LSAMP is to encourage and facilitate access to careers in S&E fields for
  underrepresented populations. The program works to encourage students to enroll in
  and complete baccalaureate programs in STEM fields as well as to go on to graduate
  studies in those fields. The LSAMP program has 34 alliances with more than 450
  participating institutions throughout the country, including Hispanic Serving Institutions
  (HSIs). Tens of thousands of students receive baccalaureate degrees in STEM annually
  with support from LSAMP.
- HRD's Research in Disabilities Education (RDE): RDE Alliances often do outreach to underrepresented minorities and veterans with disabilities. These projects help prepare students with disabilities to enter the STEM workforce.
- HRD Joint Annual Meeting: HRD's JAM brings together principal investigators from all of HRD's programs (gender, ethnicity, disability), allowing grantees to pursue the NSF goals in broadening participation in STEM collectively through improved dissemination of methods and strategies and to facilitate the formation of meaningful partnerships among funded efforts to increase productivity.
- "Broader Impact" at Program Management Seminars: EHR/HRD staff members routinely
  participate as session leaders at Program Management Seminars, including a session on
  "Broader Impact" in NSF program practice. The session includes the topics: Broad
  Categories of Broader Impacts, Importance of Broader Impacts, Importance of
  Broadening Participation, Highlighting of Research in Disabilities Education,



Administrative Leverage Points, Administrative Tools and Strategies, and Sources of Additional Help. The one-hour-plus session includes the presentation by HRD program officers and extensive question-and-answer/discussion with PMS attendees.

- NSF outreach sessions and other site visits: HRD program officers participate in program-based site visits and in "NSF Days," which are full-day programs arranged by OLPA to introduce a large audience to NSF.
- Quality Education for Minorities Network (QEM): QEM conducts a broad array of
  workshops targeting underrepresented faculty and students, as well as faculty at
  minority-serving institutions. Examples include: The TCUP Leadership Institute; a similar
  HBCU-UP Leadership Development Institute for STEM faculty; and proposal
  development workshops targeting MSIs, including one for proposals to the RDE
  program. HRD staff members very often lead sessions at these events, attending as
  many as ten per year.

Additionally, HRD leadership and program officers participated in outreach activities designed to inform NSF on the contributions, challenges and needs of the nation's Hispanic Serving Institutions. Outreach efforts were expanded in FY2011 to include webinars, including one targeting HSIs located in Puerto Rico.



# Appendix C – Academy Programs

The NSF Academy provides career development opportunities for all staff at the Foundation in order to promote learning and development across the NSF workforce. The Academy's course offerings are provided to all employees looking to learn and develop, including those from underrepresented groups. In order to direct staff to the training that is most relevant to them, the Academy has identified four "tracks" for development: (1) Leadership; (2) Program Management; (3) Administrative Professionals; and (4) Workforce (all employees). Development opportunities related to each track, all of which apply to NSF employees in underrepresented groups, are described below.

## Leadership

New Executive Transition Program (NExT) – The New Executive Transition (NExT) Program is designed to enhance NSF's capacity by quickly and effectively integrating new members of the executive corps. The NExT Program aims to (1) develop executive knowledge about NSF's mission, culture, organization, people, and business processes; (2) provide executives the tools, information, skill-enhancement, and support to reach full performance as quickly as possible; and (3) support transitions into NSF executive positions from outside the government, from other Federal agencies, and from within NSF. The program serves as a training and development strategy and a knowledge management platform. The first two components of the program – the Executive Resources Website and the Knowledge Transfer Tool (aka, Executive Log), were piloted in 2009 and launched NSF-wide in the fall of 2010. To date, the website has been viewed 831 times. The Knowledge Transfer Tool is currently being transitioned from a paper-based form to a more user-friendly electronic form. A comprehensive plan to use this form NSF-wide has been developed and will be implemented in 2012.

**Executive Leadership Retreat (ExLR)** – The Executive Leadership Retreat (ExLR) is a three-day retreat facilitated with the intention of preparing new and seasoned executives for an array of unique challenges that accompany NSF's culture. Specifically, the retreat provides participants with opportunities to network with other executives while discussing various topics pertinent to NSF's culture, resources, partnerships, policies and regulations. Additionally, the retreat utilizes Resource Advisors to assist in discussions, group exercises, and evaluations. Previous agendas have apportioned sessions to the history of NSF, diversity, merit review and the use of 360 degree feedback tools. Participants are also asked to take a short battery of personality tests that enable the executives to become more cognizant of their preferences and opportunities for improvement when dealing with key management issues such as adaptability, work stress and unpredictable work situations. The retreat ends with a focus that targets the use of

strategic planning for the purposes of developing a collaborative organizational vision in order to achieve Foundation-wide goals.

Strong attendance and consistent support from previous attendees has led retreat organizers to hold multiple iterations of the retreat in order to meet demand. Over FY2011, the retreat was held on three occasions in March, June and September. In total, 50 participants have attended the three offerings, with an average of roughly 17 per retreat. Post-retreat evaluations have been very positive, with 91% of retreat attendees indicating the retreat was 'Very Good' or 'Good', 91% of participants expecting to use what they learned as executives, and 87% viewing the retreat as a helpful networking opportunity.

Executive Coaching Program – In FY2011, the NSF Academy launched a pilot coaching program. The pilot provided 10 hours of one-on-one coaching by external consultants to 16 current NSF executives. The pilot was evaluated by a separate external group, and evaluation results suggested that executives and their supervisors found the coaching experiences to be transformational and beneficial to their success in leading their people, handling the stress of their positions, and navigating the organization to meet their goals. Most of the 16 individuals involved in the pilot stated that they would like to continue their coaching engagements, and between 6 and 10 are expected to extend their engagements into FY2012. In October 2011, the NSF Academy launched the program NSF-wide. It is expected that as many as 30 new leaders and executives will receive coaching in FY2012.

Executive Development Plans – In September 2011, the NSF Academy launched its first Executive Development Plan. The plan is hosted online using SharePoint capabilities, which enables efficient completion, review, requests to add information, and ultimately oversight by NSF's Executive Resources Board. The EDP is divided into two parts. All executives (defined by NSF as SES and IPAs in executive-level positions) must complete Part I, which outlines training requirements (including but not limited to 5 CFR 412.202) and asks executives to indicate how they plan to fulfill those requirements. Part II is optional and provides a means for executives to plan developmental activities (including internal, external, and online training as well as books to read) for the coming fiscal year. With this initial launch, all EDPs are due on October 15. Hereafter, incoming executives will have 30 days to complete their EDP and continuing executives will need to submit their EDP annually by October 15.

**Transition to Management Workshop** (previously called the NSF Supervisory Seminar) – This workshop was originally scheduled to launch in fall 2010. Given competing demands, it is now scheduled to launch on October 24, 2011. All materials are complete and individuals are



currently enrolled in the course. The objectives of the workshop are to facilitate the transition of individuals to NSF's supervisor cadre and to provide supervisors and managers with opportunities to review and discuss core topics related to their roles and responsibilities so that they may best contribute to mission accomplishment.

**Leadership and Problem-Solving Skills Course** – This 4-day workshop, which was offered three times in 2011, provides skills-based training on describing problem situations, dealing with motivation, ability, and mixed-issue problems, dealing with emergent problems, and preventing problems. Throughout the workshop, participants discuss the difference between good and bad leaders, leadership models, performance management, and the influence of communication styles, culture, and psychological mechanisms.

**Proposed Leadership Development Curriculum** – Based on the 2009 Leadership Development Needs Assessment, the NSF Academy developed a proposed Leadership Development Curriculum. This curriculum is currently being reviewed by senior management.

**SES Forum Series** – NSF participates in the SES Forum series, which provides executives with the opportunity to hear from speakers and engage in discussions on key topics affecting Federal leaders. Speakers for the 2011 series included:

- William D. Eggers, "If We Can Put a Man on the Moon... Getting Big Things Done in Government"
- Ambassador Mary Yates, Special Assistant to the President and Senior Advisor on Strategic Planning, National Security Council
- o Bill Barker and Dennis Bigelow, "A Morning with the Presidents"
- Admiral Thad Allen, USCG (Retired) and National Incident Commander, "Leading through Crisis and Times of Change"
- Rick Brandon, "Survival of the Savvy: High-Integrity Political Tactics for Career and Company Success"
- o Timothy F. Geithner, Secretary of the Department of the Treasury
- o John Berry, Director of the Office of Personnel Management
- Dr. Kathleen M. Sutcliffe, "Managing the Unexpected Resilient Performance in an Age of Uncertainty"
- David A. Livermore, "Leading with Cultural Intelligence: The New Secret to Success"

**Enhancing Innovative Potential** – In March 2009, the HRM/Academy Branch piloted *Enhancing Innovative Potential*, a full-day workshop addressing individual, group, and organizational levels of creativity and innovation. Prior to the workshop, participants (all executives) completed a



survey reflecting the culture of their organization, as well as a self-report inventory reflecting their propensity for creativity and ability to adapt to change. The workshop teaches participants how to think more creatively, stimulate rather than stifle group creativity, and promote rather than discourage innovative endeavors. Due to competing priorities, the workshop was not offered in 2010 or 2011. The Academy hopes to offer this workshop again in 2012.

**Supporting Employee Development Workshops** – In 2009, the NSF Academy revised its IDP template, created a completion guide, and designed a workshop to help supervisors understand roles, responsibilities, and best practices in support of employee development. The supervisory workshop was offered 4 times in 2010 and twice in 2011. Both the IDP and these workshops were revised at the end of 2011.

**EEO Training for Managers and Supervisors** – In 2011, NSF's Office of Diversity and Inclusion sponsored a course entitled "EEO Training for Managers and Supervisors." This course addressed diversity, equal opportunity, harassment, and reasonable accommodation. All NSF supervisors were required to attend.

**Online Leadership Development Courses** – NSF supervisors can access many quality leadership courses through LearnNSF, NSF's Learning Management System. Examples include *Sexual Harassment Prevention for Federal Employees, Developing Fundamental Critical Thinking Skills,* and *Improving Your Image*.

## **Program Management**

**Program Management Training Resources** – As a result of the Academy's 2009 Program Management Training Needs Assessment, the Academy developed an interactive webpage that provides easy access to training resources related to management of NSF programs. Individuals can sort by topic area, and also rate the usefulness of courses and/or provide comments on courses that are then viewable by others.

**Merit Review Basics Workshop** – In Fall 2010 the NSF Academy piloted a new workshop on the basics of merit review. This three-session workshop is geared toward new Program Officers, and also involves experienced Program Officers who serve as resource advisors. The course discusses Foundation-wide policies and best practices and provides opportunities for the exchange of ideas and practices with other programmatic staff. This workshop was offered a total of 5 times in 2011. Most NSF Directorates are now requiring this course for all new Program Officers and Directors, and encouraging other staff to attend.



**Program Management Seminar** – The NSF Program Management Seminar is a 3 ½ day off-site event that provides Program Officers a unique opportunity to engage in high-level discussions surrounding NSF Program Management. The PM Seminar provides:

- Presentations and discussions on the unique philosophy of NSF as articulated in its mission statement, central goals, core strategies, and in research and education themes and initiatives
- Discussion of practices, policies, laws, regulations, precedents, programs, and concerns related to NSF merit review and award-making
- A rare and valuable opportunity to network and establish effective relationships with other colleagues within the Foundation
- o This seminar was offered a total of 5 times in 2011.

**NSF in the Federal Context** – NSF in the Federal Context is a one-day in-house training session that addresses: NSF's origins and context, performance goals and evaluation, the National Science Board, congressional relations, Federal and NSF budget topics, and relations with the Office of Management and Budget. This session was last held in December of 2010 and is scheduled for December 2011.

**eBusiness Curriculum Project** – NSF has developed an eBusiness curriculum designed primarily for Program Officers who utilize the various electronic business systems at the Foundation, but is also relevant to Program Support positions. This curriculum is based on a detailed front-end analysis and job skills task analysis, and is consistently being updated to provide state of the art eLearning programs for employees. The programs are available through LearnNSF.

**Program Management Training Needs Assessment** – In 2009, an NSF Academy evaluation team conducted an assessment of training needs among Program Officers and other programmatic staff. The assessment consisted of three data collection phases: 1) interviews with the Deputy Associate Director of every NSF science Directorate as well as the Executive Officer of the NSF front offices; 2) interviews with current Program Officers; and 3) focus groups with a team of subject matter experts. A follow-on assessment will be conducted in early 2012.

**Proposed Program Management Training Resources** – As a result of the Academy's 2009 training needs assessment, the Academy website now contains a list of Proposed Program Management Training Resources. Several of these "proposed" resources are currently under development by the Academy and teams of Program Officers. These include:

- Working on Cross-NSF Interdisciplinary Teams
- o Development Resources for Permanent Program Officers



## **Administrative Professionals (aka Program Support)**

Competency Models and Profiles – In 2008, HRM developed a competency model for approximately 120 critical administrative positions. HRM condensed the key functions for each of these positions into 5 administrative job groupings, and a competency model profile was assigned to each of these 5 job groupings. In addition to competencies (e.g., building coalitions), the model contains "Subject Matter Knowledge" areas (SMKs), which represent functional knowledge specific to a job profile. Each competency profile identifies the competencies, SMKs, and target proficiency levels to help each employee in a given job grouping better understand the expectations of the position. Both the competency model and position-specific competency profiles are designed to guide employee development. In 2011, HRM mapped 7 newly-developed/revised administrative professional development courses to competencies and proficiency levels in the competency model. These courses were available to all 750 administrative professionals to enhance their career growth and development.

Learning Maps and Career Paths – In 2009, HRM created learning maps and career paths for the positions noted above. Every employee with a competency profile can create a personalized learning map by completing a competency self-assessment in LearnNSF, and then selecting courses that align with an automatically-generated gap analysis. HRM also identified career paths for several administrative positions. Employees in such positions can elect to view a gap analysis related to a target position, rather than their current position, then create a learning map that will prepare them to move into that target position if and when the opportunity arises. Each job profile-specific learning map aligns courses to the competencies and proficiency levels associated with each job profile. In late 2009 through early 2010, HRM introduced the competency model, self-assessment tool, learning maps, and corresponding employee development process to mission-critical program support positions via a series of mandatory training events. In 2011, learning maps have been used to make available over 110 instructor-led and web-based training courses to 750 administrative professional staff.

Need Analysis for Administrative Professionals – Through a combination of supervisor interviews, focus groups, an organizational document review, and a questionnaire, HRM identified and validated primary administrative professional learning and development needs. In addition to identifying administrative professional primary learning needs, NSF used focus groups and supervisor interviews to understand the context and perceived origins of NSF administrative professional staff development gaps. By identifying and understanding administrative professional staff learning gaps and performance levels, HRM is currently developing a series of new and revised courses that promote learning and development among administrative professional staff and align to NSF's mission of being a learning organization.



**Course Analysis** – HRM met with Directorates and Offices across the Foundation to determine which previously-created courses are either out of circulation or unavailable NSF-wide. Through this process, HRM identified and validated 62 previously-created and underutilized courses (e.g., courses developed by Office of Budget, Finance, and Award Management; courses offered exclusively to a single Directorate) to determine if they could be leveraged for all NSF administrative professionals.

#### Workforce

Individual Development Plans – In 2011 the NSF Individual Development Plan was revised to address feedback received over the past two years. While the existing IDP (published in 2009) was viewed as thought-provoking and useful, many employees were intimidated by its complexity (e.g., need to indicate set goals and justify learning activities on the plan itself). The IDP launched in September 2011 prompts goal setting and thoughtful reflection on selection of learning activities without requiring that these thought processes be recorded on the plan itself. To support the transition to the new, streamlined IDP, the NSF Academy updated its IDP Completion Guide and "Creating an IDP" workshop (see below).

**Creating an Individual Development Plan Workshop** – This workshop is designed to assist employees in developing high-impact IDPs. In May and June 2011, the Academy held two workshops that referenced the 2009 IDP form. In September 2011, the NSF Academy revised this workshop and launched a streamlined version to the Foundation.

After Hours Program – The After Hours Program is a competitive program that helps participating NSF employees develop skills for career goals targeted toward possible NSF positions. Program participants receive tuition assistance for courses taken during non-duty hours at government and other facilities. The After Hours Program pays for those courses related to specific career goals. Learning opportunities are the main focus of the After Hours Program; it does not provide specific positions or non-competitive selection for positions.

Avenues for Career Enhancement (ACE) – The ACE Program is NSF's upward mobility program designed to focus attention on the various options employees and supervisors can use for career development and advancement. The ACE Intern Program enables divisions and offices to determine the need for a specific position and then advertise for a trainee position leading to a targeted position at a higher level. The intern is provided training and developmental experience leading to the target position. ACE vacancy announcements are advertised NSF-wide. The vacancy announcement will specify the entry, target, and full performance grade levels for the position. Each announcement will identify the relevant knowledge, skills, and



abilities required. Instructions explaining how to apply are contained in the vacancy announcement.

Independent Research and Development (IR/D) – IR/D is a means of maintaining the proficiency of staff in their fields of specialty. It is designed for permanent staff and for individuals temporarily performing service with NSF on leave or on IPA assignments from research institutions to maintain involvement with their professional research. The maximum amount of a participant's activities generally does not exceed 50 days per calendar year. Time spent in IR/D should be reflected as Official Business.

Online Training – Using LearnNSF, NSF provides over 2,000 online courses to assist employees with their career development needs. LearnNSF also provides competencies targeted to specific job related skills, knowledge requirements for employees and action learning activities. These activities are designed to enhance the experience that employees require for continual career development and job success. LearnNSF enhances the learning experience for employees at all levels and promotes access to numerous management, leadership and career development programs.

**Diversity and Inclusion Programs** – The NSF Academy partners with NSF's Office of Diversity and Inclusion to promote and track attendance at workshop, seminars, and talks brought to the Foundation by that office.

